

From qrp-1@lehigh.edu Thu Jun 8 21:40:01 1995
Message-Id: <9505088026.AA802658500@CCMAIL.AEROSYS.LORAL.COM>
From: "Bob White" <Bob_White@CCMAIL.AEROSYS.LORAL.COM>
Subject: 30 Meter Prop. Study Challenge K5F0 vs W03B
Date: Thu, 8 Jun 1995 17:40:01 EDT

It's the sporting event of the year folks. The 30 meter propagation study challenge.

In the light weight division we have Chuck K5F0 vs Bob W03B. This is a classic match up of West vs East, CW Fox vs SSB Fox, Tall vs Short, QRP vs QRO (W03B has been known to run as much as 5 watts in his mobile on occasion).

Pick your corners friends and help chose the winner of this QRP-L event. List members will get to decide how the wining score is decided. Will the final outcome be based on total contacts, total miles-per-watt, average miles-per-watt, total number of friends on the QRP-1 list, all of the above, some of the above, none of the above?

Explanations and final interpretations of the rules will be the sole responsibility of Nils Young WB8IJN.

Well Chuck what have you been doing since the study began on 1 June?

Here is what I have contributed to the study to date.

DATE	START	CALL	POWER	SNT	RCV	STOP	QTH		NAME	MILES
6/1/95	01:55	KF9TU	0.9000	599	599	02:07	RACINE	WI	GREG	648
6/1/95	02:33	K4HPP	0.3000	599	579	02:47	MEMPHIS	TN	JIM	794
6/2/95	01:52	AA9N	0.2000	449	429	02:03	MORTON GROVE	IL	PHIL	623
6/2/95	03:07	WA0ZPT	0.9000	429	559	03:19		SD	DAVE	1224
6/2/95	03:38	N7NZ	0.9000	579	539	04:05	EUGENE	OR	EARL	2396
6/2/95	11:45	N10WE	0.9000	549	559	11:45	CAPE COD	MA	TOM	371
6/3/95	20:04	N8MHZ	0.9000	579	439	20:20	SOUTH HAVEN	MI	BRYAN	557
6/4/95	01:10	VK6HQ	0.9000	439	549	01:24	PERTH AUSTRALIA		JOHN	11613
6/6/95	00:17	W3ZK0	5.0000	559	559	00:37	JOHNSTOWN	PA	BUD	151
6/6/95	02:39	AA9N	0.9000	449	559	02:50	MORTONGROVE	IL	PHIL	623
6/6/95	02:51	N9DD	0.9000	579	589	02:57	SOUTH BEND	IN	TOM	540
6/6/95	11:15	N4RYB	5.0000	579	579	11:30	CANTON	GA	BILL	561
6/6/95	20:00	K4EXA	5.0000	349	559	20:06	CHARLESTON	SC		477
6/6/95	21:02	KG40	5.0000	559	579	21:13	CHESAPEKE	VA	AL	163
6/7/95	01:26	WA0FGV	0.9000	549	549	01:34	HOT SPRINGS	SD	JIGGS	1423
6/7/95	02:21	PY7ZZ	0.9000	449	559	02:25	BRAZIL		FRED	4786
6/7/95	02:47	W4HAM	0.9000	589	589	03:03	LARGO	FL	STEVE	857
6/7/95	03:14	HJ0VGJ	0.9000	339	339	03:20	SAN ANDRES COLOMBIA		ABEL	1865
6/7/95	11:30	W4BW	5.0000	449	429	11:43	TALLAHASSEE	FL	PROSE	746
6/7/95	21:04	N4SU	5.0000	589	579	21:24		NC	DAVE	290

6/8/95 12:41 N9HUB 5.0000 579 559 12:56 ROCKFORD IL CLAY 692

And it's a left to the chin by W03B folks!

From qrp-1@lehigh.edu Thu Jun 8 16:31:01 1995
Message-Id: <199506081543.KAA27641@chuck.dallas.sgi.com>
From: adams@chuck.dallas.sgi.com (chuck adams)
Subject: 30M
Date: Thu, 8 Jun 1995 12:31:01 EDT

Last night at 0200Z (UTC), I fired up the SWL-30 on 30M. This after playing with the TenTec Argosy 525D (Digital) model and figuring that the alignment was not all that bad, so what we may have here is an antenna that doesn't work as well as it used to. Parameters do change with the seasons.

Well, it looks like to me, 10.106MHz, the QRP ARCI normal frequency used for a starting point is pretty much useless as once again there was a rtty station there the whole night. This weekend I'm going to purchase a receiver decoder for Amtor, Pactor, and RTTY, and I guess take names and calls. :-)) I thought we had a band plan here gang. I would like advice, via private email, from the digital people what to look for and the best buy for this weekend. I saw that someone on rec.amateur.radio.misc said that the band plan gave them the entire spectrum to the low end of the band. Did something change here? I'd like to hear a civilized solution to this. I realize that we don't (we meaning QRPers in general) own any freqs and neither does anyone else, but we do have to cooperate in some manner to keep from generating problems. As more and more individuals come online and the sunspots start up, interference will increase.

Anyway, tuned up the band and BANG!!! At 10.1XX (I'm keeping this secret for a reason, as he may show up again) K4TWJ was working a few people back to back as he was

running 5W. Couldn't get a word in as he went QRT at 0235 or so.

I worked a couple of the group here and a CA for my first 3 contacts on 30M for the study. I've been challenged and I'm starting from behind on this one, but hey, if it was easy everybody would be doing it. The challenging individual will post his info and who he is later on.

QRN was still high and will probably remain so for a few more weeks and then hopefully it will die down. This time of year will find us fighting thunderboomers almost daily in the southern part of the USofA.

dit dit

--

Chuck Adams K5FO CP-60 adams@sgi.com

From qrp-1@lehigh.edu Thu Jun 8 16:39:14 1995
Message-Id: <199506081635.JAA01387@sunspot.West.Sun.COM>
From: myers@bigboy73.west.sun.com (Dana Myers)
Subject: Re: 30M
Date: Thu, 8 Jun 1995 12:39:14 EDT

> From adams@chuck.dallas.sgi.com Thu Jun 8 09:32:46 1995

Chuck wrote:

> Well, it looks like to me, 10.106MHz, the QRP ARCI normal
> frequency used for a starting point is pretty much useless
> as once again there was a rtty station there the whole night.
> This weekend I'm going to purchase a receiver decoder for
> Amtor, Pactor, and RTTY, and I guess take names and calls.
> :-) I thought we had a band plan here gang. I would
> like advice, via private email, from the digital people
> what to look for and the best buy for this weekend. I saw that
> someone on rec.amateur.radio.misc said that the band plan
> gave them the entire spectrum to the low end of the band.
> Did something change here? I'd like to hear a civilized
> solution to this. I realize that we don't (we meaning
> QRPers in general) own any freqs and neither does anyone
> else, but we do have to cooperate in some manner to keep
> from generating problems. As more and more individuals
> come online and the sunspots start up, interference will
> increase.

It is certainly possible that the RTTY station you heard was non-amateur on 30m....

Just a thought.

Dana

From qrp-1@lehigh.edu Thu Jun 8 18:30:08 1995
Message-Id: <9506081819.AA23264@us1rmc.bb.dec.com>
From: Bill Acito 08-Jun-1995 1407 <acito@asdg.enet.dec.com>
Subject: 30M RFI, follow-up
Date: Thu, 8 Jun 1995 14:30:08 EDT

A follow-up to my discussion on 30m RFI in an apartment situation:

- ran the rig (HW-9) off batteries, no change (eliminates RF in the supply or AC line as cause?)
- ran different rig (swapped the new QRP+ for the HW9)... no difference (ok, so it's not the rig).
- wrapped rig end of antenna coax around a 2" torroid (about 7 turns) -- significant reduction. But I'm still getting enough to annoy folks.

So what ever it is, I seemed to be picking up a parasitic coupling from something on 30m. I also remember a fellow ham having problems with a HF vertical in an truck install... turned out the coax was 'too short', he lengthened the run abit and it went away. Should the coax run be a certain minimum length (e.g. at least 1/4 wave at lowest frequency) to minimize coupling or parasitics in close quarters?

btw, first two QSO's on 30m with the new QRP+ were two DL's on vacation... GJ/DL1xxx and a LX/DL2xxx, last night about 0200z with about 4w to the B&W whip.

...and Chuck, that RTTY is always there on 10.106 -- as stated, I believe it is commercial. With the nice filtering on the QRP+, it's fun to see just who is tucked in underneath him, though.

b

. - I own my own words -

Bill Acito |d|i|g|i|t|a|l|
acito@asdgenet.dec.com Digital Equipment Corporation
 Digital Semiconductor - Fab 6
 Hudson, MA

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kc1gs
(grp-ne #260, norcal #1147, arrl life)
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From qrp-l@lehigh.edu Thu Jun 8 18:45:16 1995
Message-Id: <950608144328_89891520@aol.com>
From: N5EM@aol.com
Subject: Re: 30M RFI, follow-up
Date: Thu, 8 Jun 1995 14:45:16 EDT

Bill,

Maybe we should have another "propagation test", this one devoted to studying how many QSO's can be made between the high and low tones of the RTTY station. Since they are not using the middle, maybe we could use it as a private ORP channel.

How good is your CW filter :-)

72
Ed

From qrp-l@lehigh.edu Thu Jun 8 20:40:06 1995
Message-Id: <n1409496598.62863@msmailgw1.arlut.utexas.edu>
From: "rohre" <rohre@arlut.utexas.edu>
Subject: RE: 30M RFI, follow-up
Date: Thu, 8 Jun 1995 16:40:06 EDT

Bill, I had missed it if you said before, that the coax was short. There should not be a need to have a certain length unless the coax is not matching well to the vertical and/or there is not enough counterpoise "ground", in any case it

would not hurt to lengthen the coax, but I would stay away from lengths that when corrected for velocity factor are resonant in the band. An even multiple, like half wave will repeat the antenna impedance back to the rig, however. From what you discovered, you have RF on the outside of the coax, where it does not belong, possibly coupled from the vertical or the radials and the ferrite is a good way to block it. Slide the ferrite along the coax to find the most blocking effect and/or add more for more effect, then tape it where it does the most good. May need some just below the feedpoint. If your apartment is on upper floors, are you using a tuner with short coax between it and rig? Try to bring the feedline away from the vertical at right angles to radials and the vertical. I did see a critical length problem with an elevated R5 vertical on 30M that was cured by going to a random longer length of coax than just that needed to get to the base of the vertical. Shack was in an attic there, just under the vertical, maybe as close as yours. You could try coiling some coax at the feed point as a cable choke as well. Keep us informed!--Stuart

From qrp-1@lehigh.edu Fri Jun 9 00:16:08 1995
Message-Id: <199506090014.TAA29039@chuck.dallas.sgi.com>
From: adams@chuck.dallas.sgi.com (chuck adams)
Subject: 30M RTTY
Date: Thu, 8 Jun 1995 20:16:08 EDT

Several, well in fact many, have sent me personal email saying that 10.106 may be commercial traffic. It'd be nice to find out for sure and several said they would listen.

No wonder it is so loud and stays on for so long. Then 10.106MHz would be a bad meeting place and 10.116 MHz may have to be the place to move to.

I'll be above 10.110MHz when I'm on. We learn something everyday in this hobby and I forget that we don't have 30M to ourselves.

So many stations and so little time.....

dit dit

p.s. I sure am gonna lose with 0.95W against 9.5KW. I may be ignorant, but I hope I'm not stupid. The former I can cure..... :-)

--

Chuck Adams K5FO CP-60 adams@sgi.com

From qrp-1@lehigh.edu Thu Jun 8 17:41:10 1995
Message-Id: <199506081740.AA14813@world.std.com>
From: Daniel C Halbert <halbert@world.std.com>
Subject: Re: Backpackable antennas
Date: Thu, 8 Jun 1995 13:41:10 EDT

I believe it was W7ZOI who suggested in an old issue of SPRAT an easy backpacking antenna. He proposed using just two lengths of wire, one 1/4 wavelength, the other 3/4 wavelength (odd multiple). Feed between the two: leave the 1/4 on the ground, and throw the 3/4 in a tree. No feedline, no feedline losses, no soldered connections to go bad, etc.

I don't believe he had tried it out, and I never heard another mention of it, but it's certainly easy. I had always meant to try it out in the backyard, but haven't gotten the chance.

Regards,
Dan Halbert, KB1RT

From qrp-1@lehigh.edu Thu Jun 8 13:55:12 1995
Message-Id: <95Jun8.095405edt.14524-3+13@hooch.CC.Lehigh.EDU>
From: Jim Eshleman <lujce@hooch.CC.Lehigh.EDU>
Subject: Re: CALLS2DIST service
Date: Thu, 8 Jun 1995 09:55:12 EDT

Gang,

A problem with CALLS2DIST parsing ZIPs of the form nnnnn-nnnn incorrectly is fixed thanks to Brian KV9X for the bug report. Please let me know if there are any other problems with the service.

/jim

From qrp-1@lehigh.edu Thu Jun 8 22:50:41 1995

Message-Id: <199506082248.RAA28821@chuck.dallas.sgi.com>
From: adams@chuck.dallas.sgi.com (chuck adams)
Subject: Down but not Out
Date: Thu, 8 Jun 1995 18:50:41 EDT

I was deafened by the roar of the crowd as I lay there on the mat wondering where I went wrong. Why was I being punished? Had I not been living a clean life. Exercise everyday. Walking the 25 miles a week in the hot blazing Texas sun. Drinking plenty of water. Typing for 30mins a night and listening to randomly generated code words at high speed. Being drilled until the mind was a veggie.

The referee was standing in the corner with a smile on his face!! What happened to sportsmanship? Was this pick on Chuck Adams week?

No problem. We're only 8 days into the event. Plenty of time to pick up the pieces and regroup. Sit down with the propagation books, get out the MUF programs that abound, and go behind the scenes to get hints from the crowd. Always listen to the crowd. They sense blood very early in the game.

Gotta call Bob's boss and see if we can get him sent off to various districts at random for the next three months. Yeah. That's the ticket.....

And the guy even upped his power level to 5W. Geeez, what some guys won't do to win a contest^h^h^h^h^hpropagation study. :-)

OK, 3 down and N to go, where N is large.

He's up!!! He looks mad!!! He ain't gonna take it no more. K5FO - Fighting Operator is up and he's breathing hard, but there's plenty of fight left in the old geezer yet.

:-)

Bob, W03B - 21 Chuck, K5FO - 3

dit dit

--

Chuck Adams K5FO CP-60 adams@sgi.com

From qrp-1@lehigh.edu Thu Jun 8 21:44:47 1995

Message-Id: <9506082142.AA27161@rgfn.epcc.Edu>
From: ab174@rgfn.epcc.Edu (Anibal Perez)
Subject: Drake 4b series
Date: Thu, 8 Jun 1995 17:44:47 EDT

Hi gang.
I'm bitten by the Qrp bug but can't take the Drake's to go
lower than 10 Watts any suggestions???????

KP4ZN
El Paso

--

KP4ZN El Paso,TX.
Anibal Perez
Drake 4B Line

From qrp-1@lehigh.edu Thu Jun 8 20:03:57 1995
Message-Id: <m0sJnp4-00007SC@persoft.persoft.com>
From: jason@persoft.com (Jason F. Penn)
Subject: Feed-through cap source
Date: Thu, 8 Jun 1995 16:03:57 EDT

Greetings QRPers. I recall a thread here not too long ago lamenting the scarcity and expense of feed-through capacitors. I just noticed that Marlin P. Jones & Associates has on page 89 of catalog 95-5, 500 volt 10pF feed-through caps that solder into a 3/16 inch hole. Stock # 0791-CP. Cost is \$0.20 each. Such a deal. Info 407-848-8236 Order 1-800-OK2ORDER (works out to 1-800-652-6733). Lake Park, Florida. I have no interest in MPJA nor have I ever ordered anything from them, but I do know a satisfied customer.

73 de Jason, N9RPT
--

Jason F. Penn N9RPT | Persoft, Inc. | jason@persoft.com
Whenever I want to find something, it's always in the last place I look.

From qrp-1@lehigh.edu Fri Jun 9 00:43:38 1995
Message-Id: <9506081931.D8901px@slacc.com>
From: nf0r@slacc.com
Subject: Field Day Logging Program
Date: Thu, 8 Jun 1995 20:43:38 EDT

Wondering if anyone has recommendations on a nice, simple, inexpensive logging program for Field Day?

There are lots of logging programs on bbs's in the St. Louis area but dedicated pretty much to DXing and other contests.

Is there any club or group planning to run an all homebrew Field Day this year? To the St. Louis QRP Society this means *anything* hanging on the other end of the power cord, feedline and key line! Please advise!

73 de Dave, NF0R nf0r@slacc.com

From qrp-1@lehigh.edu Thu Jun 8 20:09:00 1995
Message-Id: <n1409498578.41820@msmailgw1.arlut.utexas.edu>
From: "rohre" <rohre@arlut.utexas.edu>
Subject: FW: R7 vrs Gap
Date: Thu, 8 Jun 1995 16:09:00 EDT

Replying to Rick Zabrodski's post on verticals-

To: qrp-1@lehigh.edu; zabrodsk@med.ucalgary.ca
From: rohre on Thu, Jun 8, 1995 11:31 AM
Subject: RE: R7 vrs Gap

Rick,
The concern locally has been several reports, acknowledged by Cushcraft, of random trap failures, hard assembly to critical dimensions, and a personal quality factor of mine, that antennas should cover the whole band, as I am an operator of both phone and cw modes with interest in jumping from one to the other. Also, the base mount of the R5, R7 is not well thought out for resistance to continual wind loading we often experience here in the Spring.

I also belong the group of antenna nuts who worry about losses in coils and capacitors and toroids, which the R series uses to match a feeder. A good project sometime is for one of us to measure what those losses are for high Q components and if there are measurable losses in linear decouplers that Gap uses. The newer Titan model has nary a coil and only one capacitor, (high voltage ceramic type). In the meantime, I lean to antennas with fewer lumped

components. Thanks for the experience of your friend, I like to collect the field data of all!

72, Stuart K5KVH

From qrp-1@lehigh.edu Thu Jun 8 07:50:34 1995
Message-Id: <9506080951.A10036@ccgate.ari.ch>
From: Urs Schlegel <schlegel@ccgate.ari.ch>
Subject: Re: Knobs for QRP+ Power Control
Date: Thu, 8 Jun 1995 03:50:34 EDT

Never answer, before you have read all the messages, my "business" is dead..:-)).
de Urs HB9HAU

>Real hams, barely get the thing, and modifying it already!

>Anyway, QRP+ owners, look on Pg. 231 or your Mouser Electronics catalogs.
>Re 'an Control Knobs.

>What our European brother was describing is a collet knob, that has a pop off
>cap, and you tighten a nut under that to close the fingers of the collet onto
>the shaft.

From qrp-1@lehigh.edu Thu Jun 8 13:22:58 1995
Message-Id: <9506081322.AA28957@emsr1.emsr.att.com>
From: Martin E Hartwell x2091 <meh@cbsms1.cb.att.com>
Subject: Re: Knobs for QRP+ Power Control
Date: Thu, 8 Jun 1995 09:22:58 EDT

I think I know what everyone is doing with these knobs but havn't seen
a QRP+ in real life yet. But couldn't someone take a short piece of hose
like TYGON and slip over the existing knob after heating the hose a little
to allow it to slip over the shaft and harden and set on to the shaft.
I can't really remember where I did that but that converted a had to
adjust control to one fairly easy to adjust.

Marty kd8bj

>
> Real hams, barely get the thing, and modifying it already!
>
> Anyway, QRP+ owners, look on Pg. 231 or your Mouser Electronics catalogs.
> Re 'an Control Knobs.
>
> What our European brother was describing is a collet knob, that has a pop off
> cap, and you tighten a nut under that to close the fingers of the collet onto
> the shaft.
>
> These are commonly used on the Fluke - Philips scopes, at least from 1981 on for
> several years.
>
> >From Mouser they are available in 10mm and 15 mm sizes, the tool is \$13.95 for
> each size, but I have used long needle nose pliers for years for these. The
> knobs are \$1.26 and \$1.42, and the caps .21 to .30 each. You can get different
> colors, with or without a pointer. Hope one of these sizes will fit; there is
> at least one other company in the industrial instrument knobs business in U.S.
> that advertises collet knobs regularly, but I can't think of the name now.
>
> Enjoy!--Stuart K5KVH
>
>
>
>

--

Martin (Marty) Hartwell	Phone: (614) 860-2091
Room 3D286A	Amateur Radio Station KD8BJ
6200 E. Broad St.	Email meh@cbsms1.cb.att.com
Columbus, Ohio	ICBM: 39 58 N 82 49 W

From qrp-1@lehigh.edu Thu Jun 8 15:56:54 1995
Message-Id: <9505088026.AA802637711@CC.IMS.DISA.MIL>
From: "Steven Karty" <kartys@CC.IMS.DISA.MIL>
Subject: Re: Knobs for QRP+ Power Control (COLLET KNOBS)
Date: Thu, 8 Jun 1995 11:56:54 EDT

Mendelson Electronics Co. Inc. (MECI) in Dayton, OH (800-344-4465)
also has what appears to be a small collet knob in their catalog
number 89. The knob is pictured at the top of page 16 in the middle
column, and it is described as a "Knob, 9/16" round, 5/8" high, 1/8"

dia. shaft. Top tension screw. No. 320-0218 29 cents each"

From qrp-1@lehigh.edu Thu Jun 8 22:48:55 1995
Message-Id: <n1409488845.28175@msmailgw1.arlut.utexas.edu>
From: "rohre" <rohre@arlut.utexas.edu>
Subject: Manufacturer of Collet knobs
Date: Thu, 8 Jun 1995 18:48:55 EDT

Just got this in mail:

Advertising post card from Selco Products Co., 7580 Stage Rd., Buena Park, CA.
90621-9912. They have phone of (714) 521-8673, and (800)-229-2332, and a FAX of
(714) 739-1507

"Knob bodies in black, gray, or special order colors. Snap-on nylon caps
available in seven standard and six special order colors, plain or with spots or
lines....Extensive line of pointers, figure dials and nut covers.....as low as
54 cents each in OEM quantities."

Who will be the first to get a spotted knob for his QRP +? Who is going to
co-ordinate a group buy?

(Usual disclaimer, except this IS the company I could not think of earlier, and
they have been around awhile, so should be in some industrial electronics
distributors in Ca. at least. Nor Cal friends, can you suggest a vendor of
small quantities?)

72, and I am off to Ham Com tomorrow--
Stuart K5KVH

From qrp-1@lehigh.edu Thu Jun 8 16:41:34 1995
Message-Id: <199506081639.JAA18588@mail4.netcom.com>
From: Eric Swartz WA6HHQ <erics@cruzio.com>
Subject: NorCal Field Day at Eagle Rock
Date: Thu, 8 Jun 1995 12:41:34 EDT

Gang!

A bunch of NorCal members are going to be operating Field Day from a
great site up in the Santa Cruz Mountains. (About 40min out of Santa
Cruz and easy to get to for hams in the Bay Area and other NorCal areas.

We would like to invite any other QRPers in the area to join us for field day. We are still in the planning stages, so let us know if you can make it and what you can bring!

Below is some information on the site that I sent Dave, W6EMD.

Eric WA6HHQ erics@cruzio.com
home - (408)662-1973 work - (408)464-4292

> David D. Meacham writes:

> >

> > ERIC, GREAT! SOME QUESTIONS:

>

> > 1) IS THIS FOREST SERVICE PLACE ENCLOSED OR DO WE HAVE TO HAVE TENTS?

> Eagle Rock is a Forest Service fire lookout that is no longer in use. It
> sits up on an exposed pinnacle at approximately 2800' overlooking the
> Santa Cruz Mountains and the Monterey Bay. It has a clear shot in 360 deg.
> with a steep drop off in all directions. There is adequate room for 10 to
> 20 people to stay overnight. There are no improved camping facilities,
> but there is an outhouse. (It may be falling into disrepair - bring TP.)
> Bring all food + water that you need. Also bring a tent and any camping
> cooking equipment you may have. (Do you have a large tent we could operate
> from?) Temperatures run from hot to cold at night, and it can sometimes
> be windy. (Last field day I was up there ran 75-80 deg day, 45-50 night,
> with a light breeze.) THIS IS AN AWSOME SITE!

>

> > 2) HOW MANY BANDS?

> As many as we want! So far, Stan and I have talked about 20m and 40m. We
> both have NC40s and Sierras. I also have a TS50 set for QRP. Bring
> whatever you want and we'll find a way of getting it on the air!

>

> > 3) HOW MANY TRANSMITTERS? CW? SSB?

> Again, what ever we feel like doing based on who shows up. I expect
> that at least 2 will be continually on the air with others on an ad-
> hoc basis. I suspect CW will be a main QRP mode, but I can Operate SSB
> with the TS50 and I'm sure we'll have other SSB rigs. THE MORE THE
> MERRIER!

>

> > 4) WHAT GEAR DO I NEED TO BRING? RIGS? KEY? HEADPHONES? BATTERY?

> Yes, Yes, Yes. Put together a list and email it to me and I'll
> let you know if we have too much! (You can Never really have too
> much equipment for field day...)

>

> > 5) I HAVE A 120V 600W GASOLINE GENERATOR THAT IS QUIET (ALSO HAS 12V).

> > WUD IT BE USEFUL?

> I suspect we will be battery operated - (Its nice to only hear the tapping
> of keys and the bleeping of CW in the night!) I have several good

> size batteries - one big Marine 12v and a Gel Cell.
>
> > 6) WHAT ABOUT ANTENNAS?
> So far we are planning a 40m wire delta loop beam and possibly using
> a borrowed 20m yagi. Any suggestions?
>
> > 7) DO I NEED TO BRING FOOD?
> Yes - Lunch Saturday, Dinner Saturday, and Breakfast Sunday. Also, bring
> lots of water, as it can get warm.
>
> Dave, I'm going to copy this to the QRP-L list to see if we can scare
> up any other NorCal hams. I'll put together a list of attendees and
> well discuss details on the INET, and possibly meet somewhere
> prior to FD to plan things out.
>
> Eric WA6HHQ erics@cruzio.com

From qrp-l@lehigh.edu Fri Jun 9 01:25:14 1995
Message-Id: <950608212343_66991484@aol.com>
From: JCoote@aol.com
Subject: OHR "Sprint 2" rigs?
Date: Thu, 8 Jun 1995 21:25:14 EDT

Does anyone have comments on these direct conversion kits? I'm thinking the small size may be useful for portable.

72, Jay
WB6AAM beyoop beyoop (what's a little drift?)

From qrp-l@lehigh.edu Thu Jun 8 20:37:16 1995
Message-Id: <802617118.AA02258@hamlink.mn.org>
From: CLATON.CADMUS@hamlink.mn.org (CLATON CADMUS)
Subject: RE OHR WATTMETER QUESTION
Date: Thu, 8 Jun 1995 16:37:16 EDT

Hello Mike, you wrote:

MCI can't speak authoritatively on this, since I haven't seen the schematic of the OHR wattmeter, but can report on a conversation I had with Dick of OHR on the phone a couple years back. He told me that his wattmeter was indeed based on this article, although he used

a different directional coupler (the toroids) since he considered the one in the article a bit complicated for a kit. He used the coupler circuit from the Stockton wattmeter (which was in SPRAT a few years back), which consists of two toroids and two pieces of coax. (The W7EL coupler uses 3 toroids and a microstrip on a piece of PCB material.) The remainder of the circuit is based on the W7EL article.

Thanks much for the reply Mike. Yep, the coupler in the Stockton wattmeter is the same as the one used in "The Tandem Match" Jan. '87 QST and is also shown in the back of the "W1FB Design Notebook".

The next question is, which directional coupler is better? Anybody got a clue?

I've looked over both styles and and W7EL design seems to me to be just as easy to build. OK, there is one more toroid. But I think the maximum usable frequency will be higher due to a tighter layout. If possible I want to use this meter on 2 meters too. Comments anyone?

73 de Claton Cadmus, KA0GKC

```
-----
|      FIDOnet= Claton Cadmus 1:282./100      |
|      INTERNet= Claton.Cadmus@hamlink.mn.org |
|      PACKETnet= KA0GKC@WB0GDB.#STP.MN.USA.NA |
|-----|
```

* SLMR 2.1a * If brute force can't fix it, you're not using enough!

---NoSnail v1.17

HAM>link< RBBS - Serving the Amateur Radio Community Since 1983

- 612/HAM-0000 v.34 Ham Radio Spoken Here!!
- 612/HAM-1010 v.32b Reply to sender @ hamlink.mn.org

From qrp-1@lehigh.edu Thu Jun 8 23:41:11 1995
Message-Id: <Pine.SV4.3.91.950608193535.9670B-1000000@atl11.america.net>
From: Jim Stafford-W4Q0 <w4qo@america.net>
Subject: QRP+
Date: Thu, 8 Jun 1995 19:41:11 EDT

I got mine Tuesday, June 6. Been on the air and it works fine. Nice

receiver. Well, nice everything to be honest! Gotta go, 20m calls!

73/72/jim/w4qo

From qrp-1@lehigh.edu Fri Jun 9 03:34:27 1995
Message-Id: <199506090334.UAA01296@mailhost.primenet.com>
From: bobhigh@primenet.com (Bob Hightower)
Subject: QRP+
Date: Thu, 8 Jun 1995 23:34:27 EDT

Well, finally got the antenna sorted out, and cranked up the courage (haven't worked ANY cw since I got my Advanced), and fired the QRP+ up. Thanks to Index for back-ordering the mic or I probably never would have done it, at least for a while. Anyway, nice QSO with N6PEH in CA, until he heard I was QRP (HI!), then we finished. Real nice rig, first QRP contact ever, first with the new rig, and first on cw in a looooong time.

I am impressed, and, despite all the earlier complaints, glad to have it. I will be taking it to Field Day, and will look for the weak ones whichever rig I am on.

73 to all, Bob KI7MN

From qrp-1@lehigh.edu Thu Jun 8 17:40:59 1995
Message-Id: <n1409503751.79985@wgs-2.bwi.bls.com>
From: "evans ken" <evans.ken@wgs-2.bwi.bls.com>
Subject: QRP+ Measurements
Date: Thu, 8 Jun 1995 13:40:59 EDT

I put the QRP+ on the bench with an IFR AM/FM 1200S. Here are the measurements. Keep in mind, I did not have time to calibrate the QRP+ S-Meter. The power output was variable from 100 mw to as much as 8 watts (20 meters) and as low as 4.5 watts (15 meters) The rest of the bands maxed out at 5 watts. The following is rx sensitivity measurements:

Freq(mhz)	S9	S6	S3	min. discernable
1.8	-72dbm	-87 dbm	-100dbm	-126dbm
3.0	-76	-88	-102	-128

3.56	-74	-89	-104	-128
5.0	-74	-89	-102	-130
7.040	-78	-89	-102	-130
10.106	-76	-89	-103	-128
14.060	-76	-90	-102	-126
18.070	-74	-90	-102	-126
21.060	-74	-90	-102	-122
24.890	-74	-89	-102	-122
28.060	-72	-90	-102	-122

For those of you used to microvolts, according to the IFR, 0.1 microvolts is equal to -127 dbm, and 0.2 microvolts is equal to -121 dbm.

I had an opportunity to put mine on forty and twenty meter CW last nite. I was pleased with the rx and my reports were 579 out of IL on 20, and 579's out of Ohio & NC on 40. I was running 4 W to a gap voyager. Looking forward to 30 meter work.

72/3

Ken KJ4XR
 evans.ken@bwi.bls.com

From qrp-1@lehigh.edu Fri Jun 9 00:27:54 1995
 Message-Id: <Pine.3.89.9506082054.A543623720-01000000@utkvx.utk.edu>
 From: cebik@UTKVX.UTCC.UTK.EDU
 Subject: Re: QRP+ Measurements
 Date: Thu, 8 Jun 1995 20:27:54 EDT

Ken,

You will like 30 with the QRP+, despite the RTTY around .106. Received mine. All functions tried work well. Tried 30 meters. Heard AB50U, but had wrng antenna on. Replaced antenna with vertical and worked a couple (Tucson and Carmel (NY)) with ease. Filter excellent for CW, and SSB sounded good. [Sneaky way of reporting that mine arrived also, just

before sundown.]

Glad Index did not stint on the alignment and testing, even if it meant waiting longer for them.

-73-

LB, W4RNL

From qrp-1@lehigh.edu Fri Jun 9 03:38:41 1995
Message-Id: <199506090337.UAA02529@mailhost.primenet.com>
From: aa7qy@primenet.com (Roger Hightower)
Subject: QRP+ Portable setup
Date: Thu, 8 Jun 1995 23:38:41 EDT

I just got back from my local club meeting, where the QRP+ got a lot of attention. Thought this info on my portable setup would be of interest:

A Plano Model 1233 fishing tackle box makes an ideal case...the QRP+, an OHR WM-1 wattmeter, random wire tuner and the SunLogic MRP-4 charge controller all fit nicely in the top compartment.

Below that, there is an area with three plastic boxes...the top box holds all the necessary cables, connectors, headphones, etc. The bottom two were removed, leaving space for the 12V 7ah battery, Bencher paddle, memory keyer and the antenna (random wire with counterpoise).

The dimensions of the box are such that a simple rack can be pop-riveted to the back to hold the SunLight Energy Systems solar panel.

Since the tackle box sells locally for less than 16 bux, it's a cheap way to transport the rig, and keep everything clean and safe.

72/73, de Roger AA7QY

aa7qy@primenet.com rhigh@aztec.asu.edu Ham Radio: AA7QY@KC7Y.AZ.USA.NA

From qrp-1@lehigh.edu Fri Jun 9 00:14:47 1995
Message-Id: <Pine.3.89.9506082032.A543623720-0100000@utkvx.utk.edu>
From: cebik@UTKVVX.UTCC.UTK.EDU
Subject: Re: R7 vrs Gap

Date: Thu, 8 Jun 1995 20:14:47 EDT

Rick,

You are talking of the R5, not the R7. There are significant design changes between the two. The complaints on the news group all referred to the R7, not to the R5. I have seen no complaints about the R5. Too, performance was not in question with the R7 in terms of stations heard or worked. Rather, the complaints centered around trap burnout. I am reporting a thread of difficulty reported by numerous, but by no means all R-7 owners--or perhaps not even a majority. Nonetheless, the experiences of others may make a difference to some in their decisions on what to buy--along with what they have space for, etc. My own decision was made without those reports (before they appeared) and was based on other factors, including no place up high to mount a quarter wave vertical or R7 and no desire to run a lot of radials for a ground mount system--not to mention the availability of a GAP VI locally, driven only on weekends and at a good price. Hence, I reported my satisfaction, not a detailed comparison of performance. Hope this clarifies the earlier posting.

-73-

LB, W4RNL

From qrp-l@lehigh.edu Thu Jun 8 06:55:08 1995
Message-Id: <9506080856.A10033@ccgate.ari.ch>
From: Urs Schlegel <schlegel@ccgate.ari.ch>
Subject: Re: Re: Power control on QRP+
Date: Thu, 8 Jun 1995 02:55:08 EDT

Bob, There is actually a brand name. The manufacturer is "ELMA". A well known brand name in the "electronics community" in Switzerland. But maybe useless to you? In the catalog of an electronics distributor (Swiss) was the same knob advertised as made from "ritel".

I asked one of our engineers with english mothertongue. He calls the fixation system "collet" or "collet chuck". Maybe someone in North America, working in the field of electronics, is familiar with knobs with these fixation system and can help to find a source over there.

The knob is not very expensiv. About sFr 1.50 that is +- US\$1.20 (tomorrow US\$1.15 ;-). To set up a business, sounds to much for that. But, if there is really an interest, we can make a different "sort of business". I will send one of these knobs to everybody who sends me his address by snail mail, together with 2 IRC's (a SASE might not work for overseas) for free. (Uff, I own the QRP+ Nr 398, hope not everybody would like to have the knob, otherwise, we should re-

think the "business". If there is some interest, please send E-mail to me, I will reply with my post address.

73 de Urs, HB9HAU schlegel@ccgate.ari.ch

:Urs,

:Is there some kind of "brand" name for the company that makes that knob? We
:may have to figure out some sort of import/export business with you to get
:that knob over here in North America - too bad we just can't ftp this item
:across the network (Where are you Captain Kirk when we need you....)
:73/72 Bob Vo1DRB/WA6ERB

> to QRP-L de Urs, HB9HAU
> >Has anyone found something to attach to the CW power control to make it
> >easier to turn while reaching around from the front?
> I fixed a tuning knob with a central- fixation- system, like the clamp
> in a pencil with changeable lead. This knobs are commen over here. I do
> not know, whether an where they are available abroad.
> 73, schlegel@ccgate.ari.ch

From qrp-l@lehigh.edu Thu Jun 8 20:37:03 1995
Message-Id: <802617119.AA02259@hamlink.mn.org>
From: CLATON.CADMUS@hamlink.mn.org (CLATON CADMUS)
Subject: REQUESTS FOR QRP INFO
Date: Thu, 8 Jun 1995 16:37:03 EDT

Norm wrote to the list:

NO 2. Some years back (say, about 15), I built up a Tuna-Tin-Two and the accompanying VFO from info in QST. I made several contacts with the rig but lost interest because the VFO was chirpy and constantly drifted frequency. The request is for info on a VFO circuit, fairly simple,

I'm probably wrong here, but I think the "Tuna" rigs were in CQ and QST did the "Sardine" rigs. Nonetheless, if you still have the VFO, why not fix it. The books "Solid State Design" and "W1FB Design Notebook" have good basic VFO design info. There was also an excellent article in QST sometime back on VFO stability and temperature compensation, I tried to find it in my QST computer index but couldn't. (Anybody remember? It used a foam cooler for a temperature chamber.)

If you do wish to build a new VFO checkout "Build a Universal VFO"
QST Jan '91 p25.

73 de Claton Cadmus, KA0GKC

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-----  
| FIDOnet= Claton Cadmus 1:282./100 |  
| INTERNet= Claton.Cadmus@hamlink.mn.org |  
| PACKETnet= KA0GKC@WB0GDB.#STP.MN.USA.NA |  
-----
```

* SLMR 2.1a * Rule #1 of intelligent tinkering is to save all the parts

---NoSnail v1.17

HAM>link< RBBS - Serving the Amateur Radio Community Since 1983

- 612/HAM-0000 v.34 Ham Radio Spoken Here!!
- 612/HAM-1010 v.32b Reply to sender @ hamlink.mn.org

From qrp-1@lehigh.edu Thu Jun 8 21:42:31 1995
Message-Id: <199506082140.PAA07288@zia.aoc.nrao.edu>
From: Paul Harden <pharden@aoc.nrao.edu>
Subject: RUMOR on US Pilot Rescue
Date: Thu, 8 Jun 1995 17:42:31 EDT

Gang,

Sorry, but can't resist passing this on. Was on the phone a bit ago with someone at a military base. I was told the *RUMOR* going around the Comm Station there was the U.S. pilot (Scott O'Grady) rescued from Serbia last night had been in constant contact with U.S. forces for the past six days using MORSE CODE. He had been instructed to travel to an area out of radar coverage where the rescue could be attempted. All this communications and his periodic position and welfare reports were done using morse code on his ELT locating transmitter (which presumably must have a receiver).

A couple of nites ago, NBC news showed and demonstrated the transmitter attached to the aircraft seat and how it can be detached by the pilot. It was a box maybe 4x6 and 2-3 inches thick. They demonstrated how one button activates an alarm "whoop whoop whoop" sound and the other activates the carrier manually (probably for morse code). Nice QRP rig, I remember thinking.

Anyway, my RUMOR source said he will fax me any written confirmation of this if and when it comes in. In the meantime, watch the news tonite

on the rescue for any possible mention of how they communicated or knew where to find him.

Paul NA5N

From qrp-1@lehigh.edu Thu Jun 8 22:33:01 1995
Message-Id: <950608182919_66465552@aol.com>
From: N5EM@aol.com
Subject: Re: RUMOR on US Pilot Rescue
Date: Thu, 8 Jun 1995 18:33:01 EDT

Heard the same thing about the use of CW and/or Voice on the news reports first in this morning. The commander who was being interviewed was asked by the newsperson if the pilot had used the MORSE CODE but was unable to confirm. He seemed to think that the last period of communications prior to the actual rescue was being done with voice. I remember that the old WW2 vintage 243 mhz. emergency rigs had a mic built-in. Maybe the new ones whoop, talk and chirp :-)

Ed

From qrp-1@lehigh.edu Fri Jun 9 04:19:42 1995
Message-Id: <2a6.28854.500@acenet.com>
From: brian.carling@acenet.com (Brian Carling)
Subject: RUN QRP-L X calls2dist AF
Date: Fri, 9 Jun 1995 00:19:42 EDT

From: brian.carling@acenet.com

This is great except that it hasmy zip code wrong!
I'll have to see if FCC has it wrong too.
I am at 20877!

LI>Output from stdout:
LI>AF4K ZIP = 20879
LI>WA8MCQ ZIP = 21144

LI>AF4K Lat/Long = 39 12 43 N 77 08 35 W
LI>WA8MCQ Lat/Long = 39 08 13 N 76 41 55 W

LI>Output from "gc 39.1271N77.0858W 39.0821N76.4191W":

LI>Bearing is 102 Degrees for 21 Nautical Miles = 24 Miles = 39 Km

SLMR 2.1a Avoid traffic jams; leave work at noon.

From qrp-1@lehigh.edu Fri Jun 9 04:29:59 1995
Message-Id: <95Jun9.002926edt.14524-2+19@hooch.CC.Lehigh.EDU>
From: Jim Eshleman <lujce@hooch.CC.Lehigh.EDU>
Subject: Re: RUN QRP-L X calls2dist AF
Date: Fri, 9 Jun 1995 00:29:59 EDT

>
> From: brian.carling@acenet.com
>
> This is great except that it hasmy zip code wrong!
> I'll have to see if FCC has it wrong too.
> I am at 20877!

It appears they have it wrong. Here's what I get from the callsign
server:

AF4K	CARLING, BRIAN J	LIC ISU	9-MAR-1993
EXTRA	18016 FERTILE MEADOW CT	LIC EXP	9-MAR-2003
DOB 1-DEC-1950	GAITHERSBURG MD 20879	LST UPD	9-MAR-1993

/jim

From qrp-1@lehigh.edu Thu Jun 8 04:08:46 1995
Message-Id: <95Jun8.000709edt.14522-1+10@hooch.CC.Lehigh.EDU>
From: Jim Eshleman <lujce@hooch.CC.Lehigh.EDU>
Subject: Searching the QRP-L archives
Date: Thu, 8 Jun 1995 00:08:46 EDT

Gang,

Some of you may not know you can search the list archives via the
list server. You search for a "regular expression" pattern. If you
don't know what that means, you can just specify a word. Perhaps
someone unlucky enough to be a REGEXpert can give us all a clue :-)

Below is the output of a HELP SEARCH command which may or may not
help. All files in the specified archive (directory) are searched.
If "-all" is specified, all files in all subarchives (subdirectories)

are searched as well. The command and the pattern are case insensitive. No password is required.

Please note there's a massive amount of information in the archives. Try searching QRP-L/ARCHIVES first to see if you need to be more specific in your search pattern. Then you can search QRP-L/ARCHIVES-OLD/1993 or 1994 or 1995. Or QRP-L/ARCHIVES-OLD -ALL.

The output returned to you just shows the lines in each file that matched the pattern. You then have to GET the file(s) you want. Remember to send your commands to listserv@Lehigh.EDU. Enjoy!

/jim

```
> Syntax: search <archive | path-to-archive> [/password] [-all] <pattern>
>   Search all files of the specified archive (and all of its subarchives
>   if -all is specified) for lines that match the pattern. The pattern
>   can be an egrep(1)-style regular expression with support for the
>   following additional operators: '~', if leading the regular expression
>   it reverses its meaning; '|' and '&' separate multiple regular
>   expressions (logical OR and AND); '<' '>' group regular expressions
>   (we preserve the meaning of the parentheses from ed(1), and remove the
>   meaning of < and > from ed(1) since in the ListProcessor context they are
>   either the default, or inappropriate). These can be used literally by
>   escaping them with '\'. In addition, the following characters should
>   be defined in matched pairs: (), <>, []. The pattern may be enclosed
>   in single or double quotes.
```

```
>
>   Pattern matching is case insensitive.
```

```
>
>   Certain archives may be private, and in this case you have to
>   specify a password for accessing them. The slash is required.
>   Different archives may have different passwords.
```

```
>
>   The archiving system is hierarchical. Therefore subarchives
>   may have the same names; they can be distinguished by the path
>   (the branch in the hierarchy) to them. For example, the archives
>   unix and pub/unix are distinct. 'path-to-archive' is a UNIX style
>   path (such as pub/unix) -- i.e. a '/' is used to move through the
>   branches of the hierarchy. An 'index' request always reports paths
>   to archives for your convenience.
```

```
>
>   Examples:
```

```
>   search listproc -all "<oranges &~apples>|. *andarin[sz]?"
>   search ilp '\|.*\|.*$'
```

```
>
>   Notes:
```

> - . matches ANY character including newline, so to find all lines
> that contain a newline only, one should use '^.\$' instead of '^\$'
> - If you do not quote your pattern, it will include any blanks you
> may have appended after it by mistake, and it will not include any
> blanks that may start the regular expression.
>

From qrp-1@lehigh.edu Thu Jun 8 19:19:33 1995
Message-Id: <9506081917.AA25684@rgfn.epcc.Edu>
From: af852@rgfn.epcc.Edu (William R Colbert)
Subject: solar info
Date: Thu, 8 Jun 1995 15:19:33 EDT

Fr. Bowes and others NOAA and SESC maintain a BBS for solar/propagation information. Even tho it is a toll call for most, the information is very good including Propagation report, Solar Report, Activity Summary, Weekly Summary, Outlook for 27 days (est. Flux, A and K indices), Quick look data amd MUF predictions. For the quickest time on the system, I suggest Quick Look Data and possibly the Outlook file. The number to call is 303-497-5000, follow the instructions as a visitor or one can register and receive a longer on-line limit. If one is doing a study on solar activity, the information provided is very useful. The Solar Report, Activity Summary and Weekly Summary all indicate coronal sub-surface flares which contribute to the disturbed conditions and not mentioned on WWV. The Quick Look Data also shows the sunspot number as does the propagation report - useful in some of the propagation prediction and azimuth programs. Excuse the bandwith, but thought this service worth mentioning. 73 Ray, W5XE

From qrp-1@lehigh.edu Fri Jun 9 04:10:04 1995
Message-Id: <1995Jun09.000843.19759@wb3ffv.ampr.org>
From: Mike.Czuhajewski@hambbs.wb3ffv.ampr.org (Mike Czuhajewski)
Subject: Re Stockton circuit (long)
Date: Fri, 9 Jun 1995 00:10:04 EDT

The "Stockton" directional coupler has been getting a bit of press lately on the list. I just wanted to point out that David Stockton, GM4ZNX, did not invent that particular directional coupler himself, as he himself readily admits, and that it's been around for quite a few years and is well documented in the ham and professional press.

However, he and his SPRAT article are responsible for stirring up renewed interest in it. (When I say "Stockton directional coupler", I am referring to the circuit consisting of a pair of interconnected toroidal coils with two pieces of coaxial cable, arranged to form a 4 port hybrid; it forms the heart of the "Stockton wattmeter" in SPRAT #61, and is also used in the OHR WM-1 wattmeter.) Here are some extracts from an unpublished article I wrote a couple years ago--

"This circuit may look vaguely familiar to some of you. It appeared in the January 1987 issue of QST, in an article by John Grebenkemper, KI6WX, titled "The Tandem Match--An Accurate Directional Wattmeter." The same coupler circuit also appeared in the August 1979 issue of Ham Radio, in an article by Hank Perras, K1ZDI, titled "Broadband Power-Tracking VSWR Bridge." (The QST article incorrectly referenced the May 1979 issue of HR.) In addition to that, it was also in the November 1984 issue of the Hewlett-Packard Journal, "A Broadband Two-Port S-Parameter Test Set" by W. M. Spaulding. Finally, it appears as Figure 10 in the application for US Patent 3,426,298, "Broadband Directional Coupler," patented on 4 February, 1969. (My thanks to KI6WX for copies of the last two references, which he included with his letter to me.)

"Issue #61 (Winter 1989/90) of SPRAT, journal of the QRP Club, contained an interesting article on a directional QRP wattmeter. It was written by David Stockton, GM4ZNX, and has since come to be known to many as the Stockton wattmeter, although the basic circuit has been around for quite some time (see notes at end). This is a neat little circuit, and his version uses two meters, one each for forward and reverse power. A kit of parts is available from Kanga Kits in the UK as well as Kanga US, in Ohio. The Stockton was reviewed by WB8VGE in his QRP column in the October 1992 issue of 73 Amateur Radio Today, as well as W5HKA in the January 1992 QRP Quarterly.

"The circuit is quite simple, consisting of little more than a directional coupler, some load resistors, a couple detector diodes, capacitors and a pair of meters. The coupler is beautifully simple, very broadbanded, and is little more than a pair of toroidal transformers arranged as a 4-port hybrid.

"A four-port hybrid is an interesting device. You pump power into one port (A) and get almost all of it out on the other side (B). The remaining two ports (C and D) are terminated with whatever impedance you want to work with. A portion of that power from A to B is coupled out to port C (hence the slight loss on the thru-side), where it can be monitored with a scope, power meter or diode detector. (Ideally, none of the forward power appears at port D, although in actual practice there will probably be a bit.)

"If power is fed in reverse through the hybrid, from B to A, a portion of that reverse power is coupled out of the other terminated port (D). In other words, we have a directional coupler which can be used to measure forward and reverse power, and calculate SWR from those if we wish. The interesting part is that we can flip the circuit from left to right or upside down and it still acts the same way....."

After I wrote the article, I later stumbled on another reference showing the circuit, this time with a good description of how it works. Grab a copy of Introduction to Radio Frequency Design by Wes Hayward, W7ZOI, recently reprinted by the ARRL, and look on page 157, figure 4.37. There it is again. The description starts on the bottom of page 156.

A couple years ago I did some extensive experiments with the directional coupler circuit. I built up 9 (nine!) of them, each on a separate piece of unetched PCB material with 4 BNC connectors, so I could swap input/output and terminations, and do instant A/B/C comparisons between any and all. (Yes, that ate up a full three dozen BNC jacks, but it was only a dent in my collection :-).)

Some of the variations were different numbers of turns, different cores, different types of coax. I also experimented with the shield of the coaxes--they say to ground one end, and one end only, of each piece. Does it make a difference--what if you ground both ends? Yes, it makes a difference, and I proved it (response suffers). What type of core material is best? At HF, you can use type 43 or 61 with no problems. Can you push performance to two meters? Easily, with proper construction. Some day I might get around to polishing off the article and publishing it, but it's already 9 pages on the computer, which translates to 4 1/2 on the printed page, and that doesn't include diagrams.

It's a nice, simple and elegant directional coupler circuit. My thanks to GM4ZNX for bringing it to our attention again with his SPRAT article several years ago.

73 and Queue Our Pea DE WA8MCQ

--

Mike Czuhajewski, user of the UniBoard System @ wb3ffv.ampr.org

E-Mail: Mike.Czuhajewski@hambbs.wb3ffv.ampr.org

The WB3FFV Amateur Radio BBS - Located in Baltimore, Maryland USA

Supporting the Amateur Radio Hobby, and TCP/IP InterNetworking

From qrp-1@lehigh.edu Thu Jun 8 22:08:34 1995
Message-Id: <9505088026.AA802660203@CCMAIL.AEROSYS.LORAL.COM>
From: "Bob White" <Bob_White@CCMAIL.AEROSYS.LORAL.COM>
Subject: Trip to Albuquerque, NM
Date: Thu, 8 Jun 1995 18:08:34 EDT

I will be on a business trip to Albuquerque 19-20 June. I will be free the evening of the 19th if any Albuquerque QRPers want to get together for an eyeball QSO.

72/3,
Bob White W03B (WASTP 67.58W)
bob_white@ccmail.aerosys.loral.com

From qrp-1@lehigh.edu Thu Jun 8 21:02:17 1995
Message-Id: <n1409495251.43630@msmailgw1.arlut.utexas.edu>
From: "rohre" <rohre@arlut.utexas.edu>
Subject: Use of Stockton Coupler at VHF
Date: Thu, 8 Jun 1995 17:02:17 EDT

If I remember the Sprat piece on the Stockton, it was derived from a class of couplers that was originally done for VHF use. If the toroids are the type to work at 2M, and you used clean, concise layout, there is no reason it would not work up there. There may be the need to check the values of bypass capacitors to make sure they are suitably low reactance at 2M, etc. but that is part of adapting any circuit to optimize its use at a given band.

My understanding is that the BBC uses the Stockton circuit as a kind of standard; and that perhaps that was for FM or TV bands? That last point I was never clear on, hopefully the G-QRP readers will expand on this, please.

--72, Stuart K5KVH
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